

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1-29. (canceled).

30. (previously presented) A stable gene formulation lyophilized from an an aqueous solution comprising:

- a) an atelocollagen;
- b) a closed circular plasmid vector comprising a desired gene; and
- c) an ingredient selected from the group consisting of arginine, lysine, asparatic acid, glutamine, glutamic acid, histidine, proline, maltitol, lactose, glucose, sorbitol, xylitol, and a salt thereof.

31. (previously presented) The stable gene formulation of claim 30 wherein the ingredient is selected from the group of arginine, asparatic acid, glutamine, glutamic acid, histidine, glucose, sorbitol, xylitol, and a salt thereof.

32. (previously presented) The stable gene formulation of claim 30, further comprising a cationic lipid, a cationic polymer, or a hydrophobic polymer.

33. (previously presented) The stable gene formulation of claim 30, wherein the formulation is in a rod form.

34. (previously presented) A stable gene formulation lyophilized from an aqueous solution comprising:

a) a closed circular plasmid vector comprising a desired gene; and

b) citric acid, tartaric acid or a mixture thereof.

35. (previously presented) The stable gene formulation of claim 34, further comprising an atelocollagen.

36. (previously presented) The stable gene formulation of claim 34 or 35, further comprising a cationic lipid, a cationic polymer, or a hydrophobic polymer.

37. (new) A method for stabilizing a closed circular DNA molecule in a formulation, comprising:

adding citric acid or tartaric acid, or a salt thereof, to an aqueous solution of the closed circular DNA molecule and atelocollagen, and

lyophilizing the solution.